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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/848,780	05/18/2004	Edgar C. Robinson	INT99901	7233
<div>7590 10/28/2009</div> <div>John Russell Uren, P. Eng. 1590 Bellevue Avenue - Suite 202 West Vancouver, V7V 1A7 CANADA</div>				
EXAMINER				
MASHRUWALA, NIKHIL P				
ART UNIT		PAPER NUMBER		
3749				
MAIL DATE		DELIVERY MODE		
10/28/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/848,780

Applicant(s)

ROBINSON, EDGAR C.

Examiner

NIKHIL MASHRUWALA

Art Unit

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 1-23 and 27-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S508)
- Paper No(s)/Mail Date 05/02/2005
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/27/2009 has been entered.

Claim Rejections - 35 USC § 103

2. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,025,985 of Enander in view of US patent 6,233,067 of Akkala and in further view of US patent 6,152,083 of Bridegum.

For claim 24, the hot water heating system 25 of Enander discloses a diesel powered burner 48 per fig 2A (see col 7, lines 51-52) for carrying potable water (tank 39 supply water to be heated in burner 48, fig 1) and being enclosed by an outer periphery and end portions on opposite ends of the burner in contact with the said potable water. Enander does not disclose a water jacket surrounding the said burner and exhaust stack carrying hot gases of the said burner. Akkala discloses the presence of an exhaust stack 82 running of the water jacket on the first pass per fig 2. hence, one ordinary skilled in the art would find it obvious to modify the heating system of Enander to include such exhaust stack running from the burner through the water jacket in view of Akkala so as to get better heat efficiency by utilizing heat of the exhaust gases to

heat the water. Neither Enander nor Akkala discloses concave inside surfaces of the end portions of the burner. Water heater tank 3 of Bridegum discloses two concave inside surfaces of the end portions per fig 7A which would take cyclic pressure stresses of the heater while heating the potable water from inside. It would have been obvious for a person of ordinary skill in the art at the time the invention was made to provide such concave inside surfaces to the end portions of the burner of Enander in view of Bridegum so as to resist the thermal stresses efficiently.

For claims 25-26 the heating system 25 of Enander is used for mobile vehicles 20 (see abstract) and the same is also good for heating a residential room space 27 and kitchen 34 per fig 1.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art of Enander, Akkala and Bridegum disclose the state of the art in a potable water heater.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NIKHIL MASHRUWALA whose telephone number is (571)270-3519. The examiner can normally be reached on Monday thru Friday- 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven McAllister can be reached on 571-272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nikhil Mashruwala/
Examiner, Art Unit 3749

/Steven B. McAllister/
Supervisory Patent Examiner, Art Unit 3749